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College Enquiry Chatbot Using Knowledge in Database

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Abstract: The College Enquiry Chatbot project is built using Microsoft Bot Builder, LUIS.ai and MongoDB for database[3]. This System is a web application which provides answer to the query of the student[2]. Students just have to query to the bot and bot will answer to student question[1]. Students can ask questions using any English text format[1]. There is no specific format the user has to follow[2]. The System uses built in Artificial Intelligence to answer the query provided by LUIS.ai. The system replies using an effective Graphical User Interface which implies that as if a real person is talking to the user[4]. First, bot will send query to the LUIS.ai. LUIS.ai will send its response to bot after that bot will fetch value from database and then give answer to user question[2].

Keywords: Microsoft Bot Builder, Luis.ai., Microsoft Bot Emulator, Mongo DB

I. INTRODUCTION

College Enquiry Chat Bot project will answer to student questions that is related to college[1]. First bot analyzes user's queries and understand user's message, based on bot knowledge bot provide answers to the queries of the students[1]. Students will just have to select the category for the department queries and then ask the questions to the bot that will be used for chatting[2]. Student can query related to admission, faculty details, etc. Students won't have to go to the college to make the enquiry[2]. If any new candidate enquirers for admission and the details about any department of the college this bot will help to get the answer of query of the candidate and even while getting the answer the bot will read out the answer to the candidate[1].

II. LITERATURE SURVEY

In March – April 2017, "College Enquiry Chat Bot" Prof. Girish Wadhwa, proposed to build an enquiry Chat Bot project will be built using artificial intelligence algorithms that will analyze user's queries and understand user's message. This system will be a chatbot which will provide answers to the queries of the students. Students will just have to select the category for the department queries and then ask the query to the bot that will be used for chatting. The main objective of the project is to develop an algorithm that will be used to identify answers related to user submitted questions. The need is to develop a database where all the related data will be stored and to develop a web interface. A database will be developed, which will store information about questions, answers, keywords, logs and feedback messages. In 2016, Bayu Setiaji,"Chatbot using knowledge in Database" A chatbot aims to make a conversation between both human and machine. The machine has been embedded knowledge to identify the sentences and making a decision itself as response to answer a question. The user message i.e. query is stored to the response principle. Then it matches with responses, from input sentence, it will be scored to get the similarity of sentences, the higher score obtained the more similar of reference sentences. The sentence similarity calculation is divides input sentence as two letters of input sentence. The knowledge of chatbot are stored in the database. The chatbot consists of interfaces and that interface is accessing that core in relational database management systems. The development of Chatbot application in various programming language had been done with making a user interface to send input and receive response. Designing and building tables as representation of knowledge in the database had been started from entity-relationship diagram resulting 11 entities and its cardinalities. Making use of structured query language (SQL) for pattern matching had been done within stored program.

III. PROPOSED METHODOLOGY

The proposed system will have the following modules:

A. Online Enquiry

1) Students can enquiry about faculties and query related to exams
2) Students can also ask questions placement related activities.

B. Online Chat Bot

1) The result can be show in images, cards format
2) The query will be answered basis of question asks and language model built in LUIS and responses store
3) Use
4) First type of users will College student
5) Users that want to enquire about the college at the time of admission or any competition held in the college can query to the Chatbot.

C. System Architecture

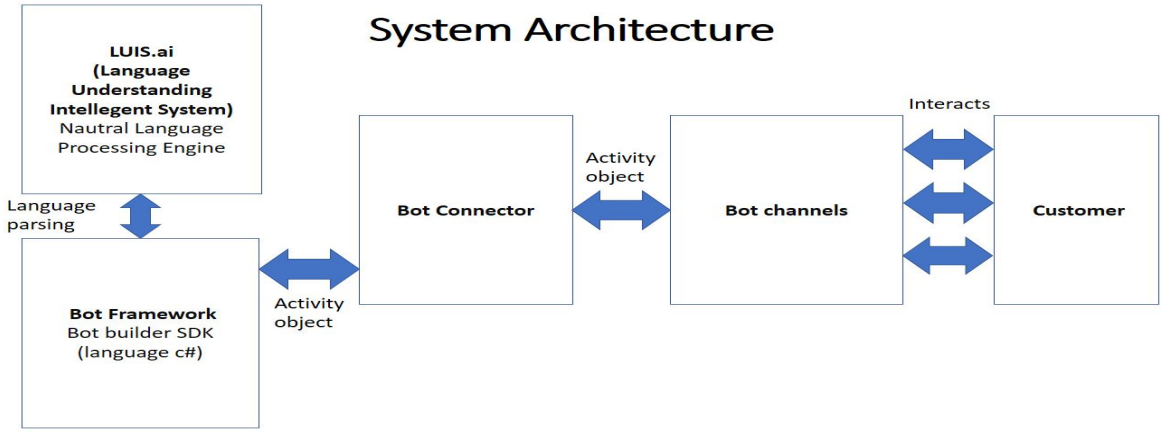


Figure 3.1. System Architecture.

In this system, user will interact with the bot through the web interface of the bot, the web application will be connected to the bot with the help of the bot connector which will create the object through which will communicate with the bot. the query entered by the user will be sent to LUIS.ai where it will be processed and Intent and Entity of the user query will be retrieved and the corresponding response will be fetched from database. This way any query regarding college will be answered.

IV. OUTPUT

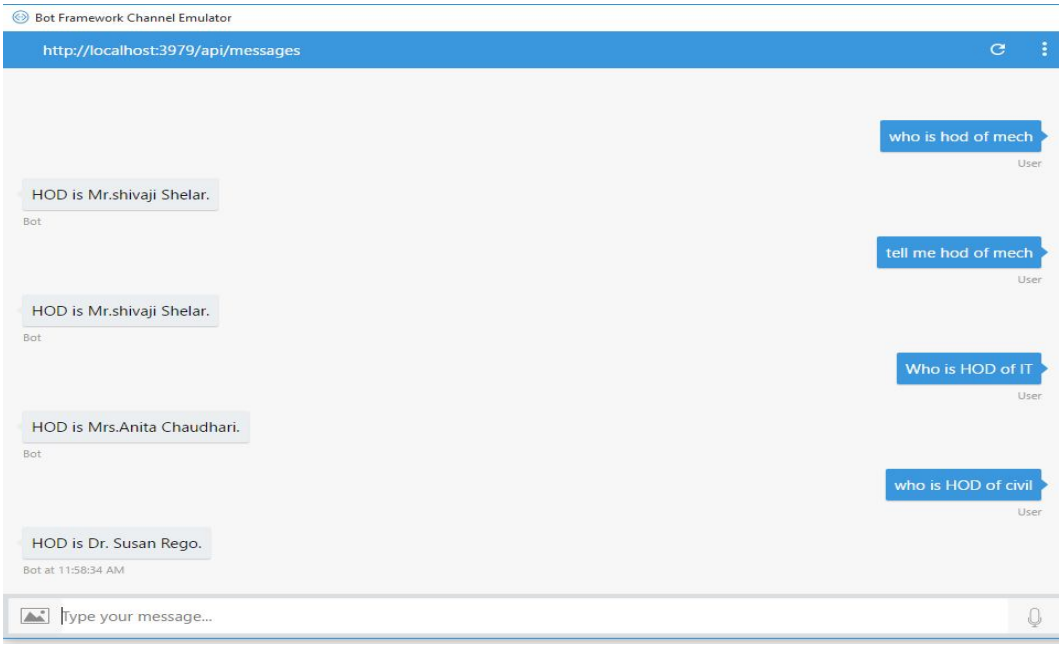


Figure 5.0. (a) GUI Design.

When question is asked such as “Who is the HOD of IT” then chatbot answers the particular question as “HOD is Mrs. Anita Chaudhari”.

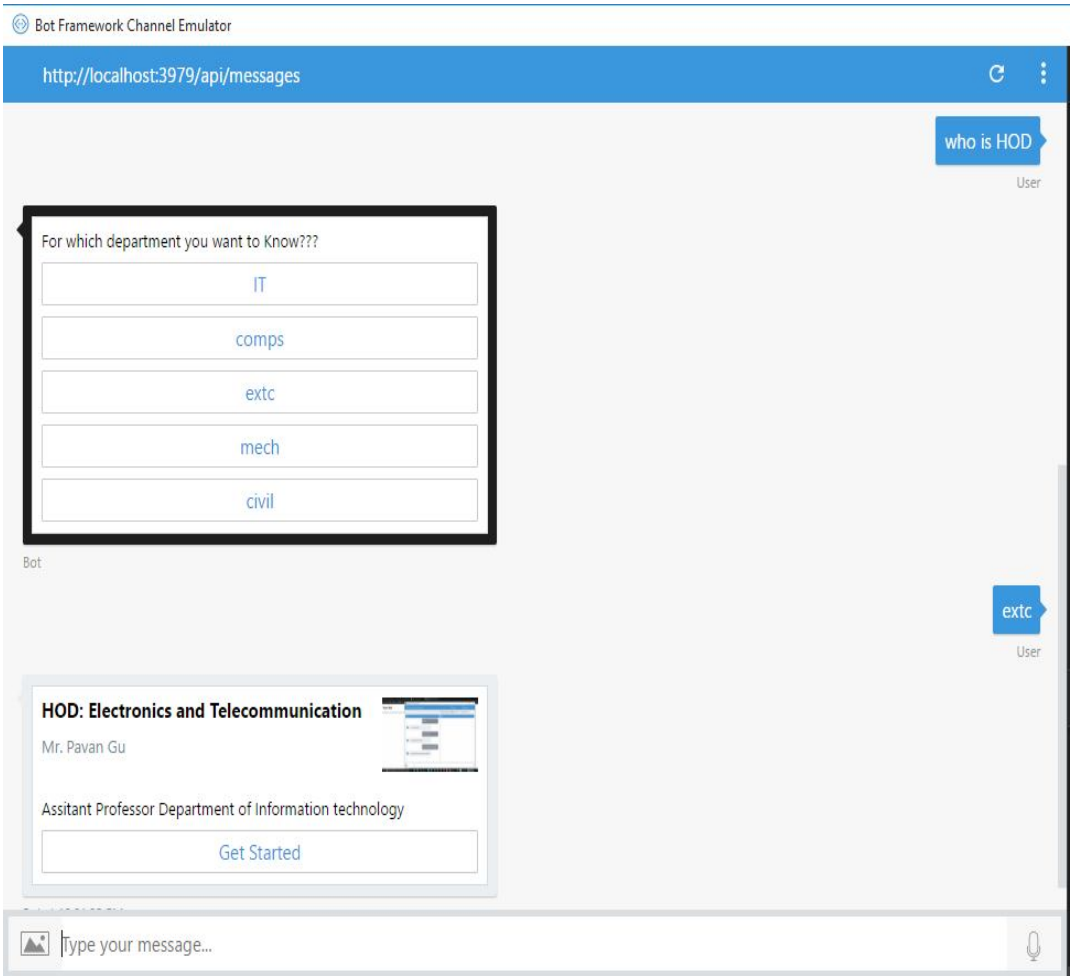


Figure 5.0. (b) GUI Design.

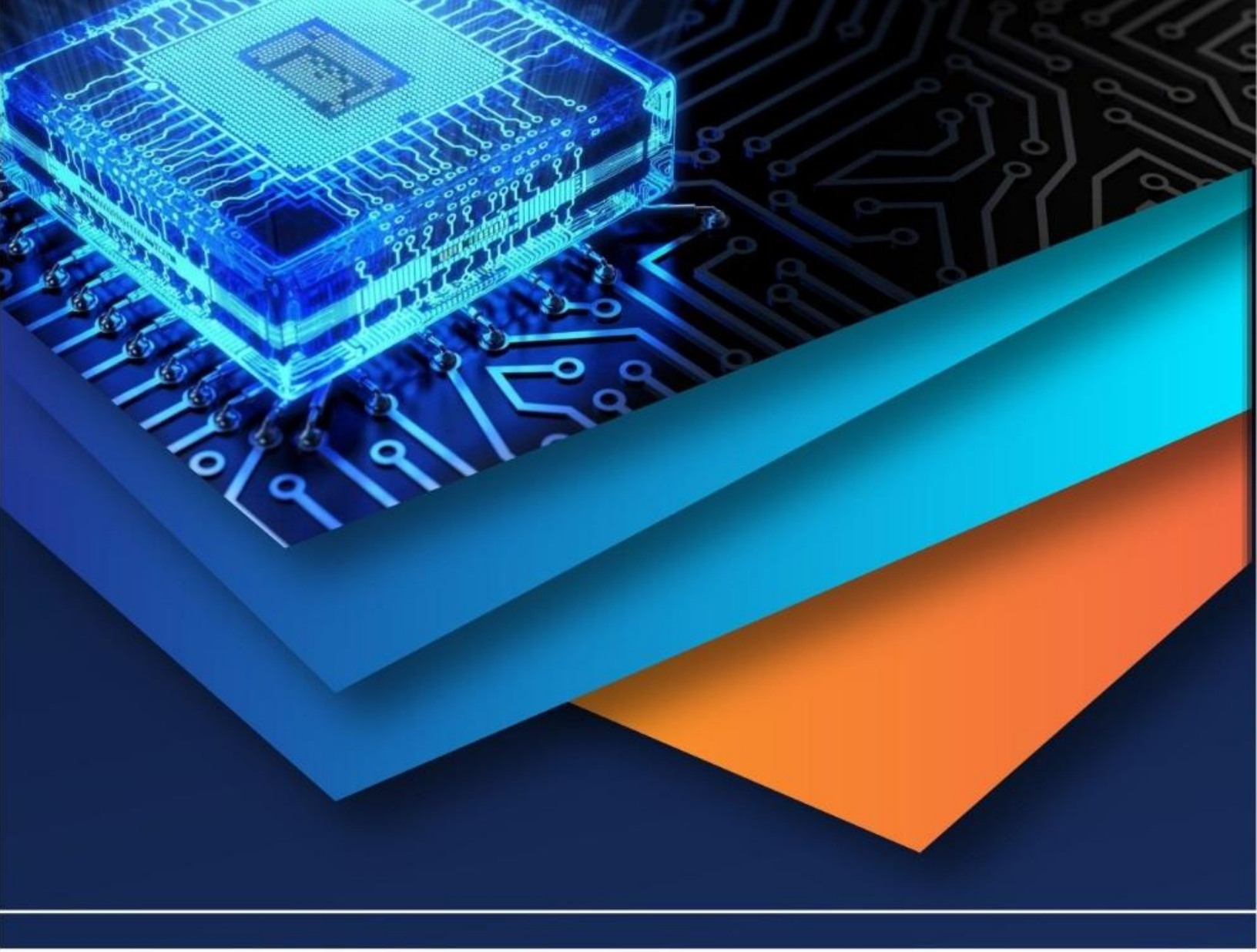
When question is asked as “who is HOD?” and department is not mention, then chatbot provide various option for eg:- (IT, EXTC etc.).

V. CONCLUSION

The Development of this chatbot is done using Microsoft bot framework, which is using Microsoft cognitive service i.e. LUIS.ai for training language model which is used to identify intent of the user and fetch an appropriate response. The user can ask the query in any format and get appropriate response on basis of pattern matching algorithm in LUIS.ai.

REFERENCES

[1] Augello, G. Pilato, A. Machi, and S. Gaglio, “An Approach to Enhance Chatbot Semantic Power and Maintainability: Experiences Within the FRASI Project,” Proc. of 2012 IEEE Sixth International Conference on Semantic Computing, 2012, pp. 186-193, doi:10.1109/ICSC.2012.26.
[2] H. Al-Zubaide and A. A. Issa, “OntBot: Ontology Based Chatbot, Proc. IEEE of 2011 Fourth International Symposium on Innovation in Information & Communication Technology (ISIICT), 2011, pp. 7-12, doi:10.1109/ISIICT.2011.6149594
[3] Erdogan, H. Nusret Bulus, and B. Diri, “Analyzing the Performance Differences Between Pattern Matching and Compressed Pattern Matching on Texts,” Proc. IEEE of 2013 International Conference on Electronics, Computer and Computation (ICECCO), 2013, pp. 135-138, doi:10.1109/ICECCO.2013.6718247
[4] J. P. McIntire, L. K. McIntire, and P. R. Havig, “Methods for Chatbot Detection in Distributed Text-Based Communications,” Proc. IEEE of 2010 International Symposium on Collaborative Technologies and Systems (CTS), 2010, pp. 463-472, doi:10.1109/CTS.2010.5478478
[5] Y. Wu, G. Wang, W. Li, and Z. Li, “Automatic Chatbot Knowledge Acquisition from Online Forum via Rough Set and Ensemble Learning,” Proc. IEEE of 2008 IFIP International Conference on Network and Parallel Computing, 2008, pp. 242-246, doi:10.1109/NPC.2008.24.
[6] Ghose and J. J. Barua, “Toward the Implementation of a Topic Specific Dialogue Based Natural Language Chatbot As an Undergraduate Advisor,” Proc. IEEE of 2013 International Conference on Informatics, Electronics & Vision (ICIEV), 2013, pp. 1-5, doi:10.1109/ICIEV.2013.6572650.



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